

# Information Vaccine: Using Graphic Novels as an HIV/AIDS Prevention Resource for Young Adults

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HIV/AIDS infections are growing at an alarming rate for young adults. In 2009, youth, ages 13–29, accounted for 39% of all new HIV infections in the U.S. (Division of HIV/AIDS Prevention, Centers for Disease Control (CDC), 2011). South Carolina ranks eighth in the nation for new HIV cases, while the capital city of Columbia ranks seventh (Carolina Teen Health, 2012). Education and prevention efforts are needed to raise young adults' awareness of HIV/AIDS issues in order to reduce this troubling trend. To address this need, the researchers and a graphic illustrator worked with incarcerated students age 15–19 in the South Carolina Department of Juvenile Justice School District, to develop an age-appropriate, culturally-diverse graphic novel on HIV/AIDS, entitled *AIDS in the End Zone*. Phase I of the project was to create the novel. Once Phase I was completed, Phase II of the project began. During this phase, graphic novel book club interventions were held with young adults in public libraries in Columbia, South Carolina to measure knowledge gains and impact from reading the graphic novel. The purpose of this phase was to examine the role that graphic novels can play as a resource for increasing HIV/AIDS awareness among young adults. Phase II was funded by the 2013 ALISE Research Grant. The findings of the study are reported here. This study is the first of its kind to provide scientifically-based research that examines whether or not graphic novels can be an effective HIV/AIDS prevention tool for young adults. Implications for LIS education are discussed.

**Keywords:** graphic novels, young adults, bibliotherapy, psychoanalytic information behavior

## Problem Statement and Literature Review

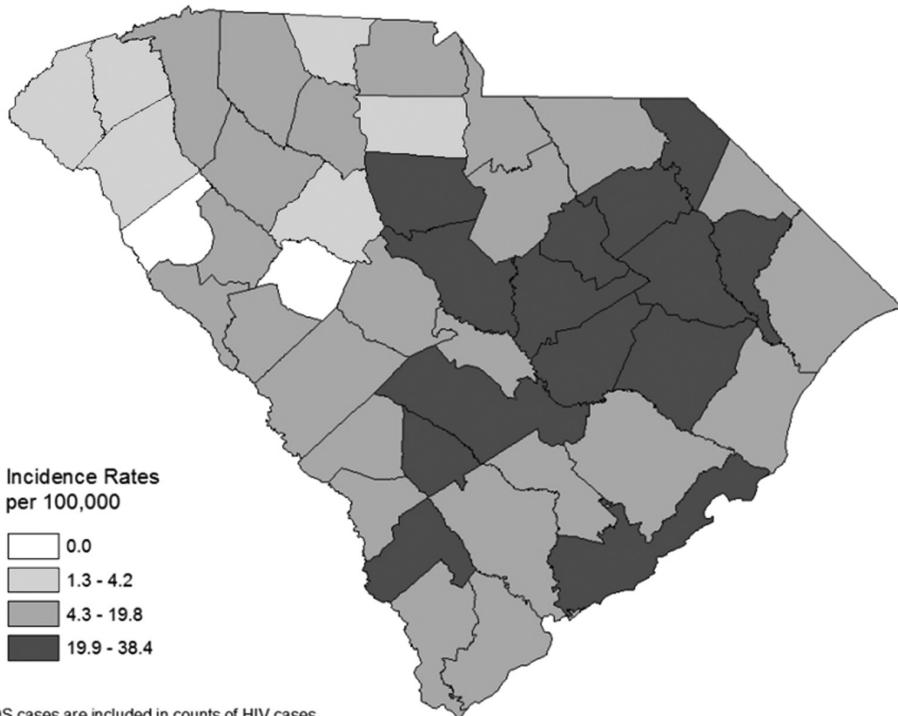
Although breakthroughs in HIV/AIDS prevention have been made in recent years, it is still a deadly disease. Over 10,129 young people in the U.S. have died from AIDS (National Institute of Allergy and Infectious Diseases, n.d.).

Of all new HIV infections in 2006, 34% were among youth, ages 13–24. By the end of 2006, nearly 56,500 youth were living with HIV infection or AIDS. In 2009, young persons accounted for 39%

of all new HIV infections in the US. For comparison's sake, persons aged 15–29 comprised 21% of the US population in 2010. In 2009, young African Americans counted for 65% (5,404) of diagnoses of HIV infection reported among persons aged 13–24 years (Division of HIV/AIDS Prevention, Centers for Disease Control (CDC), 2011).

South Carolina has one of the highest incidence rates for HIV/AIDS in the United States (Figure 1). In South Carolina the primary at-risk population for HIV/AIDS is African-American teens, particularly

## 2011 South Carolina HIV/AIDS



**Figure 1.** 2011 South Carolina HIV/AIDS (South Carolina Department of Health and Environmental Control, 2010).

young men. Eighty percent of 15 to 24 year-olds who are newly diagnosed with HIV/AIDS in South Carolina are African-American (South Carolina Department of Health and Environmental Control, 2010). The rate of reported new HIV/AIDS cases among African-American South Carolinians is eight times that of Whites (Carolina Teen Health, 2012). As a result, education and prevention efforts are needed to raise young adults' awareness of HIV/AIDS issues. Unfortunately, many young people are not concerned about becoming infected with HIV/AIDS (Kaiser Family Foundation, 2000). Further, prevention campaigns are not usually targeted to a specific, local community; rather, they are often designed in a more generic format and fall short of their intended prevention efforts (Albright, 2007). Albright (2007) identified important components of successful HIV/AIDS prevention programs

in Sub-Saharan Africa that were integrated into the current study. She identified the following components of successful campaigns that have been adapted to this study:

1. Materials should be designed specifically for the target audience within their particular culture. They need to be available in the language of the target population. The researchers believe the graphic novel should be written in the vernacular of the target population for the study: Columbia youth, aged 15–19, many of whom will be in the higher risk, African-American population.
2. Because of the high degree of illiteracy in South Carolina, materials need to be available in a format that includes visual images as well as text.
3. Because of the collectivist culture of the target population, information is

likely to be shared in common spaces (e.g. public and school libraries, community centers, schools, churches). The graphic novel should be made available in those places.

4. Peer education appears to be a common and effective approach for disseminating HIV/AIDS information. Thus, the target population should be included in the development and modification of the materials, word-of-mouth and sharing of information will be enhanced via peer networks.
5. The use of fiction is helpful for making HIV/AIDS information more interesting and appealing, particularly for youth, with a storyline and corresponding visual images.

Successful prevention campaigns also take into account the use of appropriate messages targeted to the specific population in an authentic, accessible format (Albright, Kwooya, & Hoff, 2006). Although much of the existing HIV/AIDS prevention information for young people is accurate, it is often not readily available, nor presented in a format such as graphic novels that they find appealing. Further, due to the large influence of media and advertising, today's young people are very visual and multimedia learners. As Flynt and Brozo (2010) suggest, "Visual culture is a constant in students' daily lives." (p. 526). Young adults are more inclined to read and retain information if it is in an engaging format such as graphic novels that is popular with their generation (Gavigan, 2012). Growing evidence suggests that the use of graphic novels in the educational setting can enhance learning and the artistic format can facilitate learning for students with varying learning styles and abilities (Botzakis, 2009; Carter, 2007; Gavigan, 2012; Krashen, 2004; Monnin, 2008).

In addition to these considerations, the researchers adopted a theoretical perspective from the field of psychoanalytic psychology. Rather than looking at cog-

nitive aspects, which focus on the ways in which users *think* about information, a psychoanalytic perspective was employed, focusing on a more complex set of interactions that occur between the conscious mind and that of the unconscious. There is a growing body of evidence that suggests that up to 95% of decisions are made outside of conscious awareness (see, for example, Westen, 2007). The features of psychoanalytic theory focus on affect and the expression of emotion, where the individual may attempt to avoid distressing thoughts and feelings by suppressing it into the unconscious mind (Shedler, 2010). A psychoanalytic approach suggests an alternative methodology that is more qualitatively based, i.e. projective tests (e.g. storytelling and the *Thematic Apperception Test*, among others). The use of *projection* provides insight into the inner worlds of individuals' thoughts and feelings and their meanings (Pervin & John, 2001), and are based on the belief that unconscious thoughts and feelings are accessible through a person's *projection* onto an object or situation. Projection is commonly used in psychology to investigate how a person responds to ambiguous stimuli while unaware of the assessment technique being used. The researchers chose to use this projective approach to create and test the effectiveness of an authentic, emotionally-focused, and culturally-targeted graphic novel about the sensitive nature of the topic of HIV/AIDS among young adults. The target population themselves are in a better and more emotionally vulnerable position to create a more powerful and effective story than those who are not within that population. As members of the target population, the young adults were able to create content that would be more relevant to their peers in their local community. Taking these considerations into account, the purpose of this project was to examine the role that graphic novels could play as a resource for increasing HIV/AIDS awareness among young adults.

## Project Objectives

The overall objective of this project was to provide an age- and culturally-appropriate graphic novel about HIV/AIDS with young adults in public libraries in South Carolina to help them meet the following objectives:

1. Young adults who participate in the study will develop an increased awareness of HIV/AIDS after reading the graphic novel and participating in the graphic novel book club intervention.
2. Participants will acquire the knowledge they need to make informed decisions regarding HIV/AIDS.

The HIV/AIDS prevention program, *Information Vaccine: Using Graphic Novels as an HIV/AIDS Prevention Resource for Young Adults* is a new intervention program designed to meet the needs of the target audience in South Carolina. Initial project funding was used to hire an illustrator to work with students at a South Carolina Department of Juvenile Justice School District (SCDJJSD) high school in summer 2012.<sup>1</sup> The researchers and illustrator worked with incarcerated youth to develop a culturally-diverse graphic novel on HIV/AIDS using age- and culturally-appropriate text, story, and illustrations. Together, they created a story that was of interest to the students, written in their own vernacular and designed to appeal to the high-risk population of African-American teens. The graphic novel will help young adults acquire the knowledge and resources they need to make informed decisions regarding HIV/AIDS.

The resulting graphic novel, *AIDS in the End Zone*, was piloted with high school students in South Carolina in the Richland County Public Library System in Columbia, SC in 2013. The basic plot of

the story is that the new student, Marcus, is named the starting quarterback on the varsity football team. Former star quarterback, Brad, crafts a plot to get his star spot back by setting up Marcus with Maria, who is HIV-positive. The graphic novel was used with a pilot group of young adult public-library patrons. Pizza was offered to attract participants to the event which was publicized at the selected branches. Several book club interventions took place, in which participants were given a pre-test of their HIV/AIDS knowledge before reading the novel, and a post-test to measure knowledge gains. In addition, focus groups were held with the participants and the resulting data was incorporated into modifications of the novel.

## Research Design, Methodology, and Analysis Techniques

In order to better understand the effectiveness of the graphic novel in this project, the following research questions were used to guide this study:

1. How does reading a graphic novel about HIV/ AIDS affect adolescents' understanding of HIV/AIDS issues?
2. What are the ways in which adolescents respond to a graphic novel about HIV/ AIDS?

In Spring 2013, book club interventions were held with three groups of high school age students in the Richland County Public Library System. The researchers were granted Institutional Review Board (IRB) approval before initiating the interventions. During the interventions, participants were asked to take a survey to assess their knowledge and attitudes about HIV/AIDS prior to reading the graphic novel. Next, each participant received a copy of the graphic novel and was asked to read it, after which they were asked to take another survey assessing their knowledge and attitudes about HIV/AIDS. This provided data about the knowledge gains from the

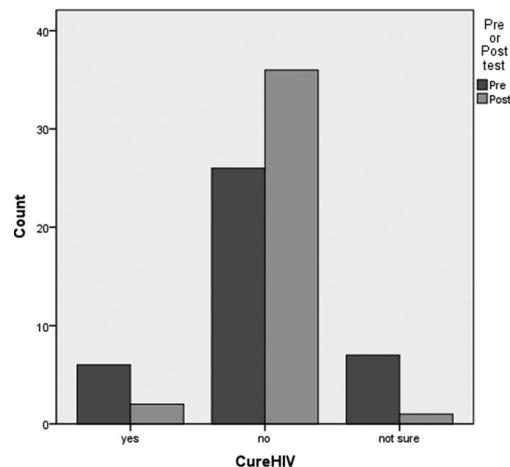
<sup>1</sup>A Carnegie Foundation Community Initiative grant from the University of South Carolina was awarded in 2011 to pay the graphic novel illustrator for her work in Phase 1 of the project.

graphic novel. After the post-survey was completed, participants participated in a focus group interview to explore their views of the graphic novel, what they had learned, and what modifications they thought should be made to the graphic novel. Subjects were each given a \$20 incentive card to participate in the study. Impact evaluation was measured by analysis of data from the focus groups and pre- and post-survey scores. The descriptive questions were designed to show any knowledge gain and change in attitudes among the participants. The qualitative questions were designed to provide insight into the nature of the materials' impact and provide clues as to which elements of the material were particularly effective in influencing knowledge and attitudes. Based on the data that resulted from the book club interventions, the graphic novel was modified to incorporate suggested improvements.

## Findings and Discussion

The total number of study participants was forty, of which 80% were female and 20% were male. The mean age of participants was 17, with a range from 15–20. The majority of participants (85%) self-identified as African-American, 12% as mixed race and 3% as white. Of the forty participants, 37% considered themselves to be at risk and 36% knew someone who has/had HIV/AIDS.

A comparison of the pre- and post-test survey results, taken before and after reading *AIDS in the End Zone*, revealed a number of positive results. After reading the graphic novel, there was a 25% decrease in the number of people who believed that HIV/AIDS was transmitted genetically. The number of people who believed there was a cure for HIV, or who were uncertain about a cure, was small before reading the novel. Post-test survey results, however, indicated a significant decrease in the number of erroneous beliefs in a cure for HIV, and a significant increase in the number of correct answers (Figure 2).



**Figure 2.** Is there a cure for HIV/AIDS?

Fewer than half (of) the participants believed that HIV could be spread through breastfeeding, prior to reading the graphic novel. Post-test survey results revealed a significant increase in the number of people who, after reading the novel, understood that HIV can be transmitted through breastfeeding.

Qualitative results from the focus groups also produced informative and interesting data. One of the most frequently mentioned issues encountered by the researchers, in discussions with other people who read the graphic novel, was the lack of a homosexual character in the story. When the study participants were asked for their opinions about homosexuality in the story, the overwhelming response was that a homosexual character should be added to the story.

Another topic that emerged in the data pertained to Maria, the only woman in the story. There was extensive discussion about misogynistic aspects surrounding Maria's character. The general consensus was that her character needed to be better developed, including a deeper portrayal of her own views of herself and her life. One participant reported:

Maria needs a little more work. Her facial expressions look like she's doing bad acting.

Other participants suggested her appearance needed some changes. One participant suggested:

Short-shorts are a bit trashy; make her a bit less seductive.

Another participant said:

Take out the nose ring.

A third participant added:

Too much tight clothes; boobs hanging out.

Another comment that was made suggested the story be expanded to include more about Maria's friends.

Maria needs to have friends around her. One friend should know about it.

The ending of the story was also discussed, since some focus group participants described it as "over the top." The original story was that the character of Sean, Brad's best friend, would follow his conscience and grab the microphone at the championship football game of the season and tell everyone there the truth about what Brad had done to set up Marcus and Maria. Alternative endings were discussed and recorded.

Other concerns identified during the focus groups were also discussed. There was some confusion over the point of a discussion depicted between Marcus and his parents. One participant responded:

The parents should have had a sex talk with him. They should have given him condoms instead of money, by showing him the right thing, instead of sending him out with money. He's going to have sex regardless.

In addition, there was a scene where it appeared that Marcus might be preparing to hit Maria. The participants felt that this ruined Marcus's good guy status and that it should be deleted. As one participant said:

I didn't like the punching scene. . . . Marcus should have just told everyone she had it rather than hitting her.

The results of the surveys and focus groups were taken back to the young men at the South Carolina Juvenile Justice Department for their consideration. The researchers felt that it was important to maintain the authenticity of the story, since it was the students' creation. The students made the final decisions regarding modifications, which have now been incorporated into the final story. *AIDS in the End Zone* is scheduled for publication in early 2014, through the Young Palmetto Books imprint of the University of South Carolina Press.

Future plans are to return to the SCDJJ to work with another group of incarcerated youth to produce another title in the series. This is based on the desire of the students who felt it would be important to create graphic novels about additional social issues. They came to the realization that the visuals in the graphic novel aided their learning, thereby scaffolding their knowledge in the area of HIV/AIDS awareness. For example, one young man commented:

I would rather read a graphic novel than a textbook because pictures get to the point quicker.

Another student added:

Visual with text was more fun to read . . . you can actually see the scenes playing out.

One student described his pleasure in participating in the project when he stated:

It gave us the experience to write a book and be a part of a creative thing.

## Discussion

While the overall findings suggest positive knowledge gains, they were not as great as were expected by the researchers. This may be explained by an age and education effect, however. Correlating grade with the knowledge gains suggest that most of the participants in the study had completed high school health science, where

HIV/AIDS information is part of the curriculum. The gains also suggest, however, that the information presented in the existing curriculum may not be sufficient at getting enough and accurate information to their students. Overall, the preliminary results are promising, although the graphic novel may be more effective with young adults who have not yet been exposed to HIV/AIDS curriculum, i.e. those students not yet in high school. This is a question for future research.

A psychoanalytic approach was used as part of the rationale for the creation of the graphic novel. The target population were themselves selected to author the content in order to create an authentic story drawn from their own emotional perspectives that were projected onto the characters in the story. While the initial results are promising, further research is needed to determine its effectiveness.

### Implications for Curriculum

Library and Information Science (LIS) education has not traditionally been in the business of creating content, which has been more the realm of other disciplines. In light of the increasing investigation and understanding of information use, however, it seems a natural step for LIS educators to encourage students to work with local constituents to create content targeted to specific local community needs. This study provides preliminary evidence to support the idea that LIS educators and professionals can develop useful, relevant and effective content. The process can be easily replicated in school, public and academic library settings. For example, school librarians can collaborate with classroom teachers to help students create curriculum-based graphic novels that address the American Association of School Librarian's Standards for the 21st Century Learner and the Common Core State Standards (CCSS). Further, Youth Services Librarians can provide programming that allows children and young adult patrons to

create graphic novels on a variety of topics, including social issues that could then be shared with the community.

The findings of this study are already being incorporated into our LIS classes, including Young Adult Literature for graduate students and Information Literacy for undergraduates. Students in these classes learn how the content for the graphic novel was developed, how this process can be replicated as well as how the use of graphic novels can scaffold learning in a variety of content areas.

### Conclusion

The quest to provide effective HIV/AIDS prevention resources for young adults must examine the texts that they value, such as graphic novels. This is the first study of its kind to provide scientifically-based research that examines whether or not graphic novels can be an effective HIV/AIDS prevention tool for young adults. The students who participated in the graphic novel intervention project acquired the knowledge and resources they needed to make informed decisions regarding HIV/AIDS, including how to reduce or eliminate risk factors, how to talk with adults and / or partners, where to get tested for HIV and more. The findings suggest that *AIDS in the End Zone* has the potential to significantly impact on young adults in South Carolina, since it provides the target population with a greater knowledge of HIV/AIDS issues after participating in the graphic novel intervention.

### Future Study

The results of this pilot study were encouraging and additional funding will be sought to initiate similar analysis nationally and worldwide. A primary goal is to extend this study to a more global audience and replicate it in other cultures. Specifically, the University of South Carolina's School of Library and Information Science has a partnership with Royal I Mutee-

sa University in Kampala, Uganda. The partnership between the two universities would provide the human capital necessary to replicate the study in that culture. A longitudinal study would be useful, where study participants are re-surveyed at six months and a year out, although there are a number of potentially confounding variables that could affect results.

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